Prolonged Internal Displacement People (IDPs) and Common Mental Disorders in Iraq: The COMRAID Study

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Abstract:

Evidences is lacking on the mental health issues among internally displaced people, particularly among Iraqis where displacement is prolonged. This study was carried out in year 2017 as a comprehensive evaluation of some Iraqi people who had been displaced since late of 2013 due to the attack to some Iraqi cities by ISIS. This study aimed to investigate the prevalence and correlates of common mental disorders. A cross-sectional study was conducted among a randomly selected sample of IDPs who had been displaced over three years within the country. A total of 250 adults aged 18-55 years from five camps participated in the study. Prevalence of common mental disorders was assessed using Patient Health Questionnaire, while PTSD was measured using the CIDI sub-scale. The results showed that the prevalence of any common mental disorder was 38.8%, and prevalence for subtypes was as follows: somatoform disorder 24.3%, anxiety disorder 16.7%, major depression 12.8%, and other depressive syndromes 9.4%. Prevalence of PTSD with full and partial symptoms was 18.5%. The results also demonstrated that some of the demographic variables such as unemployment, marital status (widowed-divorced) and food insecurity were significantly associated with CMDs. Findings of this study add support to the existing literature which has suggested that exposure to displacement tends to produce long-term mental disorders. Furthermore, the study is highlighting the huge need to explore broader mental health issues of vulnerable people affected by forced displacement.

Introduction

War, sectarian and internal conflicts causing forced internal and external displacement among civilians are a common global phenomenon, and usually associated with substantial health and social impacts on internally displaced persons (IDPs) including acute and long-term impacts on mental health and social life (Freh, 2016). Psychological literature has focused on mental health problems related to forced displacement in both conflict-affected refugee and IDP populations. However, little is known about the impact of prolonged internal displacement among Iraqis. What we do know is based on studies which aimed to investigate prevalence rates of indicators of psychological problems. We know of no study looking at mental disorders following displacement among adults.

The experience of forced displacement is such difficult experience. It can last from short period to much longer periods, and sometimes reaches several years or might be decades or even generations. For the most of the countries including Iraq, the nature of the conflict that caused displacement, the ongoing geo-political situation and the choices of the displaced population may define the outcome of the displacement process. IDPs differ than refugees in such important issue which is the IDPs may not have choices to end their ordeal since they are displaced within the country and they are often under the control of local authorities or parties responsible for displacement. The IDPs may not covered by NGOs especially those who lives in camps far than the cities. So, they are neglected and affected socially, emotionally, economically and mentally (Mooney, 2005).

Continuation of such circumstances has been found to be significantly associated with poorer mental health outcomes among those IDPs. The most thing that can act to compound the already raised risk of mental disorders among those IDPs is when

the displacement takes place in a backdrop of resource-poor settings where social vulnerability, lack of adequate infrastructure along with loss of hope for the future (Roberts et al., 2009a).

Studies around the world found that the experience of displacement could lead to a variety of mental disorders, and the majority of these studies have focused on a limited numbers of disorders, such as PTSD, anxiety and depression (Mels et al., 2010). Too, the most recent epidemiological studies focusing on the broader common mental disorders (CMD) spectrum related to displacement is inadequate. Within the limited available global studies, CMD prevalence rate is seen to vary substantially, e.g. in Colombia the prevalence rate of CDM was found to be 27.2% among IDPs, in Ethiopia 27.8%, in Palestine 40.3%. While in Cambodia and Algeria the prevalence rate of CDM was higher and scored 57.7% and 62.3% subsequently (De Jong, Komproe & Van Ommeren, 2003). Furthermore, these studies were conducted among participants who were refugee and IDPs which is not giving us a clear picture about the situation of those populations and making the assessment of the impact of the prolonged displacement much difficult. The lack of an epidemiological evidence-base about the prevalence rate of CDM could inhibit the formulation of effective help and interventions, despite the fact that prolonged internal displacement presents significant yet complex public health challenges to both resource-poor affected nations and to the numerous NGOs involved.

Against this backdrop, the ‘COmmon Mental Disorders and Resilience Among Iraqi IDPs study aimed to investigate the rate prevalence of CMD (including depression, anxiety and somatoform disorders), and PTSD among adults affected by the conflict-driven prolonged displacement since 2013 in the governorates of Anbar and Baghdad- Iraq (Freh, 2016). Although there has been huge amount of

literature looking into trauma and mental disorders among Iraqi people affected by the decades of conflict in Iraq, this study is considered the first comprehensive study to investigate the prolonged forced displacement and its mental health impact among Iraqi people. This paper shall present results on the outcomes of CMD and PTSD prevalence and their associations with socio-demographic/socio-economic factors.

Methods

Ethical Approval

Since the Department of Health (DoH) is involved with the cases of IDPs, ethical approval for this study was obtained in advance. Permission was also obtained from some NGOs such as Médecins Sans Frontières (MSF), Première Urgence Internationale (PUI) and The United Iraqi Medical Society (UIMS) who are acting in the sites to help with collecting the data. Informed written consent was then obtained from all the participants.

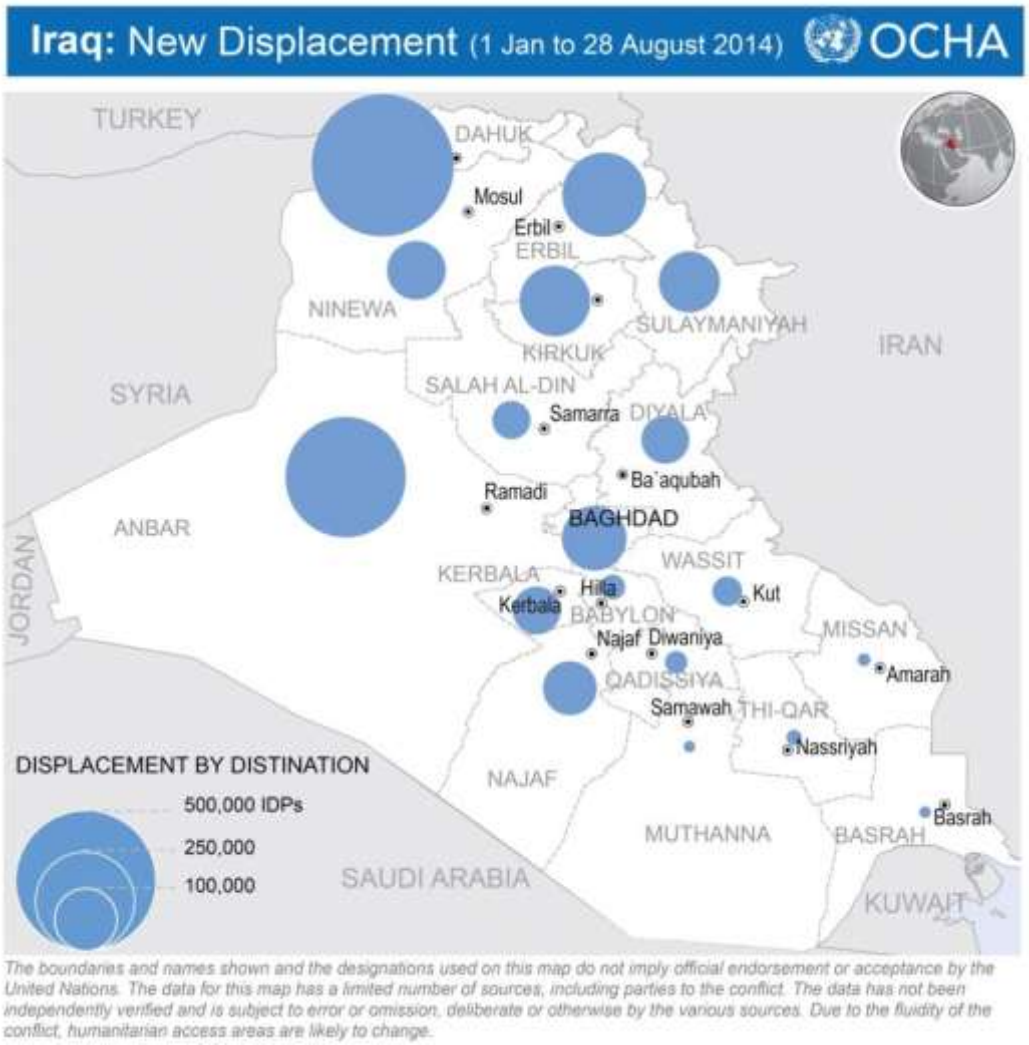
Study Design and Participants

Iraq, a multi-ethnic with a mid-year population of almost 35 million estimated in 2013 and some of the worst health and educational indicators in the Middle East, has seen many instances of internal displacement due to the attack of ISIS to some the cities. The main participants of this study exposed to the displacement since three years beginning from the early year of 2014 till 2017.

The COMRAID cross-sectional survey was carried out in the second half of 2017 in both Anbar province and the capital (Baghdad). The COMRAID cross-sectional survey was carried out in the second half of 2017 in both Anbar province and the capital (Baghdad), which has long had a majority of displaced people. The both

provinces contains different camps that were built by both the Iraqi Government and the NGOs who started their work right after the crisis. The sites have been an accessible safe haven for a large number of IDPs due to its geographical closeness to conflict areas. Camps in Amiriyat Fallujah (city in Fallujah province in Anbar province, about 30 km south of Fallujah city), Habbaniyah Tourist City (HTC) (78 kilometers from west of Baghdad) and Al-Shams camps (Abu Ghraib district about 30 km west of Baghdad) were selected for sampling as they had the largest concentration of IDPs within a relatively small geographic area. It is estimated that about 3,112,914 people were displaced (530,196 families) starting from January 2014 to November 2015. According to the International Organization for Migration (IOM), Anbar Province hosted the largest number of IDPs with 18% (573,450 people) following by Baghdad 18% (568,140), Dhuk 13% (418,152), Kirkuk Governorate 12% (381,036), Erbil 10% (331,068) 205,344) and Sulaymaniyah governorate 5% (162,468). The majority of IDPs (33%, 1,058,682 individuals) came from Anbar province (IOM, 2017). Fig. 1illustrates the displacement routes and resettlement areas of the Iraqi IDPs.

Fig. 1 the displacement routes and resettlement areas of the Iraqi IDPs.



Participants

Clinical and nursing staff in the camps helped with the recruitment. They were acquainted of the purpose of the study, given the inclusion criteria and asked to identify potential participants. The inclusion criteria used in the study were as

following: 1) Iraqi nationality, 2) aged between 18-55 years, 3) able to read and write and 4) displaced and residing in camps of Baghdad and Anbar provinces.

No prior prevalence data on mental disorders were available for the Iraqi IDPs living in the study area. A sample size of 125 was calculated as being required (alpha 0.05, 90% power), assuming a 10% prevalence of common mental disorders. As the study used a cluster sampling method with a design effect of 3.0, total sample size was doubled. Allowing for an 80% response rate, it was decided to approach 250 to be participated, allowing precision (95% confidence interval) of 2% around a characteristic with 5% prevalence, and 3% around a characteristic with 10% prevalence for descriptive analyses.

A multi-stage sampling procedure was adopted. The camps were randomly chosen based on the chance of equivalent to the size of each camp population. In the first stage, 10 camps (for 250 participants) were selected according to the population of IDPs in each of these camps. Number of all camps was not easy to know and therefore it was decided to rely on the camps that are located in Anbar and Baghdad province. The camps list and catchment population information were obtained from the Camp Coordination/Management - CCCM. In the second stage, about twenty households were randomly chosen from each selected camp using a list of camp residents provided by the camp manager. Subsequently, each household was approached and an eligible member randomly selected using the Kish method.

Measures

The information of the COMRAID study were gathered from the participants using structured interviews. The interviews consisted of several components:

1- Basic demographic characteristics

A 7 item demographic questionnaire was included in the study to gather information about participants' economic characteristics, gender, age, marital status, mental health outcomes (prevalence of common mental disorders, PTSD), current drug use and current smoking prevalence.

2- Mental Health Outcomes

Using the Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD PHQ) (Spitzer, Kroenke & Williams, 1999), mental health outcomes were assessed. This scale was designed to measure and diagnose the most common mental disorders such as somatic complains, major depressive symptoms and anxiety. The PRIME-MD PHQ has an 11 items symptoms severity scale corresponding to DSM-IV criteria. It also has Physical Symptoms with 15 items (PHQ-15) and PHQ-9 to check for any problems and how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people. The scale has been widely used in cross-sectional researches and showed sound psychometric properties.

3- PTSD Symptoms

Post-traumatic stress disorder (PTSD) was separately measured using the Composite International Diagnostic Interview-section K (CIDI-K). The CIDI is a comprehensive, fully-structured interview designed to be used to assess PTSD symptoms according to the criteria of ICD-10 and DSM-IV. The scale was used widely in epidemiological, cross-cultural and clinical studies (Rashid, Kebede & Alem, 1996; Gelaye et al., 2013).

All the scales were adopted to be used in this study. The researcher firstly translated the questionnaires which had never been translated into Arabic language and used in Arabic culture, whereas questionnaires which had already been

translated into Arabic language and used in Arabic culture were used with slight amendments to be fit with the Iraqi culture. Back translation was subsequently conducted by a professional interpreter.

Although the questionnaires have been found to demonstrate high internal consistency and discriminant validity in previous studies, the researcher tested the psychometric properties of the inventories. The PRIME-MD PHQ showed sound psychometric properties. Cronbach's alpha for the questionnaire was.82. While, the reliability (Cronbach's alphas) coefficients for the CIDI-K was 0.78.

To confirm the clarity and ease of comprehension of the questionnaires, the full questionnaires were piloted. Twenty (M=10, F=10) volunteer participants were involved in the preparatory phase of the COMRAID study. To refine questionnaire items, input from key informants of the IDP community was used. Answers and comments of the pilot study were analyzed. The analyzed data triggered further amendments, regarding the instructions of the questionnaires, and demonstrated good content validity in so for as all the questionnaires were clear and understandable.

Taking into account current demographic variables (e.g. age, gender, educational level, marital status and economical characteristics), the participants ranged in age from 18-55 years (M=31.32, SD=9.14). In terms of the gender, the participants of this study distributed between males and females with 153 (61.2%) males and 97 (38.8%) females. The majority of the participants (189, 79.2%) were married, 12.8% single, and same number (10, 4%) were divorced and widowed. The majority of the participants (151, 60.4%), (94, 37.6%) had obtained education up to primary and secondary level respectively, while very little proportion had earned a college degree (5, 2%). In terms of the income level, the vast majority of the participants (235, 94%) reported low income. To measure the food insecurity, the

researcher used the reported total number of days without enough food to meet the needs of the household of a participant, covering the calendar year before the date of the data collection, and was categorized as a binary entity on the basis of more than 60 such days per year.

Data collection

Data of the study was collected by a team of researchers who worked with NGOs acting in the camps, recruited and trained for the study. The team consisted of 2 females (working with MSF) and 2 males (working with PUI). Both team members have prior field experience in psychosocial research. The two females were university graduates, while the males had advanced level in psychology (MA in Educational and psychological sciences). All were native Arabic language speakers and were conversant in English. To account for community sensitivities, a gender-matched data collection strategy was used. Initial and refresher training session was provided for all the interviewers by the principal researcher. The training session was focusing on basic mental health knowledge, the instructions of the study and questionnaires, and on ethical principles such as (gaining informed consent, confidentiality and privacy).

Data analysis

Following extensive data checking, univariate and bivariate analyses, SPSS version 20 was used to analyze the data of this study. The researcher used the descriptive analysis, to find out the prevalence rate of mental health disorders and all the demographic characteristics of the participants. Correlational analyses using the parametric Spearman's correlations were used to establish the correlation between the income level and other demographic variables of gender and education level,

followed by unadjusted hierarchical multiple regression analyses of association between any CMD and relevant socio-demographic/socio economic variables. Given their significant correlation with the CMD, we carried out two separate hierarchical multiple regressions in this analysis between CMD and demographic/economic variables, in which the first module included CMD (any CMD/sub groups) scores were interred into block 1 with the gender, marital status, education level variables in block 2. And finally, block 3 comprised the financial difficulties and food security variables. The dependent variables were the CMD/sub groups. No outliers (Mahalanobis ≥3 SD) were detected during the exploration of diagnostics.

Results

Incidence of CDM

The results of the current study indicated that the prevalence rate of CMD among the study population was 38.8%. Somatoform disorder (24.3%) was the most common sub-category followed by anxiety disorders (16.7%), major depression (12.8%), and other depressive syndromes (9.4%). In terms of PTSD screening, results showed that the prevalence rate of PTSD with full and partial symptoms was 18.5%.

Predictor variables and outcomes following displacement

To establish the relationship between predictor variables and outcomes, two hierarchal multiple regression analysis were carried out. Before presenting the data of the regressions, table 1 shows the correlation between the predictor variables and the outcomes.

Table 1 *r* between Predictors and Outcomes

	CMD	Somatoform Disorder	Major Depression	Other Depressive Symptoms	Anxiety

1. Age	0.16	0.18	0.22	0.13	0.11
2. Gender	0.33*	0.29*	0.34*	0.36*	0.41*
3. Marital status	0.44*	0.53*	0.49*	0.56*	0.48*
4. Education level	0.14	0.9	0.11	0.4	0.5
5. Income level	0.53*	0.56*	0.57*	0.64*	0.54*
6. Food insecurity	0.64*	0.63*	0.58*	0.53*	0.59*

The results show that there was a significant correlation between gender, divorced or widowed status, low income level, and food insecurity and all of the CMD components. Age and educational level were both not significantly correlated with the outcomes.

Cross-sectional of factors associated with mental disorders

Hierarchical multiple regression equation included two models was carried out, in which in model 1 marital status (widowed/divorced), women and food insecurity were significantly associated with CMD. Model 2 also showed that low income level was significantly associated with any CMD (see table 2).

Table 2 Regression analyses between demographic variables and CMD

		B	*SE*	*B*
Characteristics	CMD total score			
Model 1				
	Marital status			
	Widowed	4.72	2.83	.35*
	Divorced	3.56	3.15	.41*
	Gender	4.21	3.18	.39*
	Food insecurity	4.15	4.11	.53*
Model 2				
	Income level			

Low income	2.95	1.44	.45*

*P< .05

Discussion

This study aimed to investigate the impact of mental health of internal displacement among Iraqi people. The study is considered one of few such studies of prolonged internal displacement worldwide. It also aimed to examine the prevalence of PTSD symptoms. The findings of the present study indicated that the prevalence of somatoform disorder (24.3%) and major depression (12.8%) were substantially high and not within the range estimated in other international studies. The prevalence of CMD was also relatively high (38.8%) compared to what has been found in other international studies of IDPs (e.g. Ethiopia; 27.8%, Colombia; 27.2% and Sri Lanka; 18.8%) (Feyera et al., 2015; Roberts et al., 2009b). However, the ratio appears to be lower compared to previous studies conducted among IDPs in Arabian countries (Palestine; 40.3%, Algeria; 62.3%). The prevalence ratio of PTSD with full and partial symptoms (18.5%) in the COMRAID participants is also higher comparing to a previous national and international studies (Iraq; 14.5%, Palestine; 12.6, Guatemala; 11.8%) (Freh, 2016). This may be attributable to the severity of the experience and thinking that their lives were in danger, as well as the longer period of displacement. The living conditions in displacement, compared in context to other Arabian countries affected by conflict (such as Palestine) have to be carefully considered, in interpreting these findings. These IDPs did not expose to continuous conflict-related trauma after their experience of displacement as the resettlement areas were not affected significantly by the conflict.

The current study also found that the prevalence of the current CMD was high (especially anxiety disorders and depressive symptoms). This may reflect the living

conditions of the IDPs in the camps and economic challenges in these circumstances, as well as the sense of being cut-off from original homes and livelihoods, especially among those who are old. Findings did not show an association between age and mental health. This association was not significant even after considering other covariates. The absence of a significant association between age and depression or anxiety specifically in COMRAID is in line with some studies (Kuwert et al., 2009; Makhashvili et al., 2014). This may reflect lack of statistical power, or might be due to cultural differences, which might obscured a significant association between age and mental health.

However, there are some other factors became more salient than age. After we adjusted for the variables, low income level, insecurity of food and being divorced/widowed status made a significant contribution to the model. This result can be explained according to the risk of mental health following traumatic events (in this case displacement). Scientists postulate that the sudden loss of the capacities of the person (such as work, money and family), lack of livelihood, loss of social structure and the ability to understand the trauma of forced displacement could increase significantly the risk of mental illness.

Results of the current study suggested that women developed a higher prevalence rate of mental disorders compared to other conflict-affected communities. This finding can be explained by the trauma theory. It has been suggested that exposure to dangerous traumatic experiences (in this case displacement) could liable to cause mental disorders through somatic symptoms (Ehlers, Mayou, & Bryant, 1998). It has also been suggested that the prevalence rate of depression and anxiety are commonly observed among displaced women more than men. This, however, was not observed in this study. Exposure of the males to several traumatic events during the experience of displacement might explain this result. Furthermore, the

higher social and economic burdens placed on males during the period of post-displacement to provide for families might be another explanation. However, more research and understanding are required to confirm this.

The marital status especially being divorced or widowed was significantly associated with CMD. It was also quite common among women. Again, the trauma theory could explain the reason behind this finding. It is possible that absence of husband/partner and support they used to offer during especially traumatic events may trigger more psychological problems. Too, the lack of livelihood, loss of social structure, gender-associated stressors related to their experience of displacement may all contribute to the higher risk of mental disorder among the participants (women) of this study.

The results also showed that low income level was associated significantly with the mental disorders. This result is in line with a series of literature (Artazcoz et al., 2004). Studies have been frequently focused that displacement itself could affect the income of the IDPs since they left their origin homes. Therefore, displacement may have acted as a barrier against obtaining reasonable income to fulfill their daily life needs and, thus may affect the mental health and psychological well-being. Finally, the study found that food insecurity is a significant factor to be associated with mental disorders. Finally, the study proposes that food insecurity is a significant factor to be associated with mental disorders. It is quite obvious that lack of sufficient food and low income levels could add an extra stress and burden on the shoulders of the IDPs. Thus, lack of food security may play an important role to create direct or indirect impact on mental health of the lives of IDPs.

Conclusion

To the best of the researcher knowledge, this study is unique in its attempts to investigate the impact of displacement on mental health. It can be concluded that displacement could lead to variety of mental health disorders including somatoform disorders, anxiety, major depressive symptoms and PTSD. Variations in circumstances and demographic variables such as low level income and insecurity of food resources could aggravate the mental health problems. The findings of this study add new insight to the impact of forced internal displacement on mental health on the global level.

النزوح الداخلي طويل الامد والاضطرابات النفسية الشائعة لدى عينة من النازحين العراقيين

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تكاد الادبيات النفسية تفتقر الى دراسات معمقة لقضايا تخص اضطرابات الصحة النفسية لدى فئات النازحين داخليا لاسيما لدى العراقيين الذي يعاني من هذه المشكلة منذ اواخر عام 2013. اجريت هذه الدراسة عام 2017 كتقييم شامل لبعض النازحين العراقيين الذين يقطنون مخيمات النزوح بسبب الهجمات الارهابية التي تعرضت لها بعض المدن العراقية من قبل تنظيم داعش. استهدفت هذه الدراسة استقصاء مدى انتشار الاضطرابات النفسية الشائعة وارتباطها ببعض المتغيرات. اجريت هذه الدراسة المستعرضة على عينة مختارة عشوائيا من الاشخاص النازحين داخليا والذين تركوا منازلهم لمدة ثلاث سنوات. شارك في الدراسة عينة بلغت 250 شخص تتراوح اعمارهم بين 18-55 سنة من خمسة مخيمات تنتشر في الانبار وبغداد. تم تقييم انتشار الاضطرابات النفسية الشائعة باستخدام استبيان صحة المريض ، في حين تم قياس اضطراب ما بعد الصدمة باستخدام المقياس الفرعي CIDI. بعد تحليل البيانات احصائيا اظهرت النتائج أن معدل انتشار الاضطرابات النفسية بمختلف اشكاله كان 38.8 ٪، اما الاضطرابات الفرعية فكانت كالتالي: الاضطرابات الجسدية 24.3 ٪، اضطراب القلق 16.7 ٪، الاكتئاب الشديد 12.8 ٪، ومتلازمة الاكتئاب 9.4 ٪. كما اشارت النتائج الى ان انتشار اضطراب ما بعد الصدمة مع الأعراض الكاملة والجزئية قد بلغ 18.5 ٪. اشارت النتائج ايضا الى وجود علاقة ارتباطية ذات دلالة احصائية بين بعض المتغيرات الديمغرافية مثل البطالة والحالة الزوجية (الأرملة - المطلقة) وانعدام الأمن الغذائي مع ال CMDs. تضيف نتائج هذه الدراسة الدعم إلى الأدبيات الموجودة التي تشير إلى أن التعرض للنزوح يميل إلى إنتاج اضطرابات نفسية طويلة الأمد. وعلاوة على ذلك ، تسلط الدراسة الضوء على الحاجة الماسة إلى استكشاف قضايا الصحة النفسية والعقلية الأوسع نطاقاً لدى الاشخاص الاكثر عرضة للاضطرابات النفسية والمتاثرين بالنزوح القسري.

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